# LaTeX packages

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#### 1 Section

Dummy text

#### 1.1 Subsection

Dummy text

#### 2 Another Section

Dummy text

This part can be used with package 'amsmath'

$$f(x) = x^2$$

This part can be used with package 'graphicx'



Abbildung 1: LaTeX figure

For subfigures, package 'subcaption' is needed



Abbildung 2: Two subfigures

## 3 Tables

Normal table

A	B	C
L	С	R
left	center	right
1	2	3
1.01	2.02	3.03
1.1	2.002	3.003

booktabs

A	В	С
L	С	$\mathbf{R}$
left	$\operatorname{center}$	$\operatorname{right}$
1	2	3

Aligned decimal

1.000	2.000	3.000
1.010	2.020	3.030
1.100	2.002	3.003

multirow table

A	B C	C R
L left	center	right
1		2

#### longtable

A	В	С
L	С	R
left	center	right
1	2	3
2	2	3
3	2	3
4	2	3
5	$\mid  2$	3
6	2	3
7	$\begin{bmatrix} 2 \\ 2 \end{bmatrix}$	3
8	2	3
9	2	3
10	2	3
11	2	3
12	2	3
13	2	3
14	2	3
15	1  2	3
16	$\mid  2$	3
17	2	3

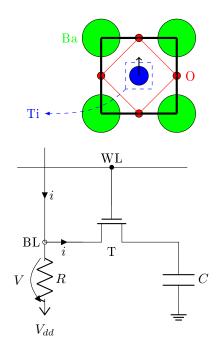
A	В	С
L	С	R
left	center	right
18	2	3
19	2	3
20	2	3
21	2	3
22	2	3
23	2	3
24	2	3
25	2	3
26	2	3
27	2	3
28	2	3
29	2	3
30	2	3

C	R	right	ဘ
В	C	center	2
A	П	$\operatorname{left}$	П

Autogenerated csv table

Step	Temp. K	$u_x  imes  imes  imes$ Å	$\overset{u_{m{y}}}{ ext{Å}}$	$\overset{u_z}{\rm \AA}$
0000020000 0000025000	360.000 360.000	$0.139 \times 10^{-3} \\ -0.564 \times 10^{-3}$	$-0.488 \times 10^{-3}$ $0.698 \times 10^{-3}$	-0.152 $-0.152$

## 4 Drawing



## 5 Source Code Listings

```
#!/usr/bin python
def hello_world(text=''):
    print(''Hello World {}!''.format(text))

Class Number():
    def __init__(self, n=1):
        self.number=n

def print(self):
    print("The number is {}.".format(n))
```

## 6 Citations & Hyperlinks

These are citations<sup>1</sup> and Paul u. a. ("Ferroelectric Phase Transitions in Ultrathin Films of BaTiO<sub>3</sub>", S. 1) using biblatex. Using hyperlinks like this or https://journals.aps.org/prb/abstract/10.1103/PhysRevB.78.104104.

<sup>&</sup>lt;sup>1</sup>Nishimatsu u.a., "Fast molecular-dynamics simulation for ferroelectric thin-film capacitors using a first-principles effective Hamiltonian", S. 2.

#### Literatur

Nishimatsu u. a.: Fast molecular-dynamics simulation for ferroelectric thin-film capacitors using a first-principles effective Hamiltonian PhysRevB.78.104104

Takeshi Nishimatsu u. a. "Fast molecular-dynamics simulation for ferroelectric thin-film capacitors using a first-principles effective Hamiltonian". In: *Phys. Rev. B* 78 (10 2008), S. 104104. DOI: 10.1103/PhysRevB.78.104104. URL: https://link.aps.org/doi/10.1103/PhysRevB.78.104104.

Paul u. a.: Ferroelectric Phase Transitions in Ultrathin Films of  $BaTiO_3$  PhysRevLett.99.077601

Jaita Paul u. a. "Ferroelectric Phase Transitions in Ultrathin Films of BaTiO<sub>3</sub>". In: *Phys. Rev. Lett.* 99 (7 2007), S. 077601. DOI: 10.1103/PhysRevLett.99.077601. URL: https://link.aps.org/doi/10.1103/PhysRevLett.99.077601.